REDACTED VERSION

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SITE INSPECTION TASK WORK PLAN
FOR
MILES ROAD LANDFILL
TXD980697072
WA # 25-6JZZ

EPA Project Manager	Date
Project Manager	6/2/93 Date
Team Leader	6/11/93 Date

90044956

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1.0 INTRODUCTION

The Fluor Daniel ARCS Team was tasked by the U.S. Environmental Protection Agency (EPA) to develop the Site Inspection Task Work Plan for the Miles Road Landfill Site (TXD980697072). This site is located in Garland, Dallas County, Texas.

1.1 Site Sampling Inspection Objectives

The Site Inspection (SI) is an intermediate investigation study of the pre-remedial process. It further characterizes the site through the Hazardous Ranking System (HRS) documentation. The SI expands on information obtained during the Preliminary Assessment (PA) conducted by the Texas Department of Health.

The objectives of the site inspection are to describe possible hazardous waste contamination at the site and correlate this to a sampling strategy. The site specific activities and the responsibilities of the field team will also be identified.

1.2 Site Description

The City of Garland Miles Road site is an inactive landfill located in Garland northeast of Miles Road, east of Pleasant Valley Road, and west of Castle Drive. The geographical coordinates of the center of the site are 32°56'31" north latitude and 96°34'46" west longitude (Ref. 1, 2).

The site encompasses 45 acres (Ref 2), with approximately 30 acres actually being used as landfill. The landfill portion of the site has one owner, (Joel) Vaughn McCallum (Ref 4), who currently grazes sheep on this property (Ref. 5). Adjacent to Mr. McCallum's property is a City of Garland power right of way, which was used as the access road to the site (Ref 16). Site fencing, used to contain the sheep, would discourage unauthorized site access. The site sketch is shown as Figure 2.

The landfill was exclusively filled with municipal solid waste, no liquid or hazardous waste was accepted (Ref 2). The City of Garland, who leased the property, disposed of approximately 67,000 tons of refuse into the landfill from February 1973 to June 1975 (Ref 2). The landfill had a 3 foot final cover of topsoil applied after disposal activities ceased (Ref. 5). Although the site does not have an engineered liner, the site is noted to have a natural clay liner (Ref 10). No leachate controls, gas extraction, or other landfill controls exist at the site.

The City of Garland states that no hazardous wastes were accepted at the site. The City of Garland Sanitation Department visually inspects this landfill every six months, and no signs of release have been recorded (Ref 5). There is no information to suggest that significant quantities of hazardous waste were accepted at the site. However, miscellaneous residential wastes do contain hazardous constituents which may migrate from the site.

The site is adjacent to the City of Garland's "old burning dump" and the Castle Drive (TXD980626766) and Castle Drive and Miles Road (TXD980750368) Landfills. The "old burning dump", where municipal wastes were burned prior to restrictive regulations, is directly across Miles Road from the site. The Castle Drive Landfill is approximately 1100 feet southwest of the site across Miles Road, and the Castle Drive and Miles Road landfill is approximately 600 feet south of the site across Miles Road. Site Investigations are currently being performed, by Fluor Daniel, on the Castle Drive and Castle Drive and Miles Road sites. No CERCLA activities are known to have been performed on the "old burning dump".

Land use within 1/2 mile of the site is primarily agricultural, pasture, active landfill, or undeveloped bottom land. The two residences on the McCallum property are within 200 feet of the site. Low density residential areas exist near the site and a church is located approximately 3000 feet south of the site. No schools, businesses (other than the operating landfill), or terrestrial sensitive environments are located within 200 feet of the site. Commercial agriculture occurs on-site in the form of sheep pasture and horse feed production.

The cells of the landfill have subsided and standing water collects in the depressions after heavy rains (See attached Photolog). The site drains towards its southwestern corner

adjacent to the bend in Miles Road. From there the drainage goes in a general west-southwest direction to Rowlett Creek, which is less than 4/5 mile from the site (Ref 1). There is a pond adjacent to the site; however, it does not receive drainage from the site because it is upgradient. Rowlett Creek outlets 2 1/2 miles south from the probable point of entry (PPE) into Lake Ray Hubbard. Lake Ray Hubbard is used as a main water supply for the City of Dallas and other municipalities. Lake Ray Hubbard was formed by damming the east fork of the Trinity River. The 15 mile downstream segment ends on the east fork of the Trinity River, south of Lake Ray Hubbard. The site is outside of the 500 year floodplain (Ref 9).

Rowlett Creek is fished recreationally, particularly after rains which trigger spawning runs of white bass. There are no known drinking water intakes or other water resource uses along Rowlett Creek from the PPE to it's outlet into Lake Ray Hubbard. Lake Ray Hubbard is fished recreationally. The east fork of the Trinity River south of Lake Ray Hubbard is fished recreationally. There are no known drinking water intakes or other water resource uses along the east fork of the Trinity River from Lake Ray Hubbard to the end of the 15 mile downstream segment.

There are no municipal water wells in the City of Garland (Ref 6). The City of Garland receives its water from Lake Levon. The City of Garland historically used ground water for its municipal water source; however, ground water has not been used since 1960. All municipal wells were abandoned and filled with sand and concrete. The depth to ground water for these wells (3,200 feet) and ground water temperature discouraged further use (Ref 6). There are several private wells in use within a mile of the site. Only one of these wells (b) (6) well) is known to be used as a source of potable water (Ref 16).

There are no federal or state designated sensitive environments near the site (Refs 7, 8). No federal or state designated endangered or threatened species are known to exist within 4 miles of the site (Ref 7, 8). The Texas Garter snake is a state Category 2 (under review) species and may inhabit terrestrial areas within 4 miles of the site.

The population surrounding the site is estimated as follows:

0 - 1/4 mile	12
1/4 - 1/2 mile	178
1/2 - 1 mile	1,282
1 - 2 miles	7,408
2 - 3 miles	14,287
3 - 4 miles	17,352

The population for the 0 - 1/4 mile ring was determined by a house count during the site reconnaissance (Ref 16). A total of four houses were determined to be within 1/4 mile of the site. A housing population density (3.01 persons per house) was determined using Reference 11. The population for the distance rings starting at greater than 1 mile were determined through the use of GEMS (Ref 15). The population for the 1/4-1/2 mile and 1/2-1 mile ring were determined by linearly interpolating the population density from the 0-1/4 mile ring to the 1-2 mile ring.

1.3 Site Specific Objectives

The primary objective of this site inspection is to document the presence, or absence, of hazardous materials both on-site and off-site. An HRS prescore for the site will then be determined. This information will indicate if the site warrants further investigation or if no further action is required.

This sampling plan will address all possible pathways of migration. Nearby private ground water wells will be sampled as part of this SI. Additionally, all of the monitoring wells at the adjacent active landfill will be sampled concurrently as part of the Castle Drive Landfill SI or as part of the Castle Drive and Miles Road Landfill SI. The clay cover in place over the waste interred at this site will be sampled to determine potential exposures from both the soil exposure pathway and air pathway. Additionally, soil samples from a 3 to 5 feet depth will be taken in the landfill cells to determine potential migration to ground water and to better characterize the composition of the waste at the site. Sediment samples will be taken from the surface water pathway to determine potential migration of contaminants.

2.0 DATA REVIEW AND DATA COLLECTION

All previously collected sampling and non-sampling data are addressed in this section. Proposed data collection activities are also detailed.

No samples are known to have been taken at this site. Ground water samples have been taken at the nearby operating landfill (Castle Drive Landfill and Castle Drive and Miles Road sites) The operating landfill has 11 ground water monitoring wells which have all been tested for general water quality parameters (Ref 6). In addition, a metals analysis was performed on monitoring well 8A, which is approximately 3500 feet southwest from the site. This metals analysis has not undergone proper QA/QC to be considered acceptable data for use in this investigation. However, no key metal constituents were identified.

The PA prepared by the Texas Department of Health (Ref 3) did not identify the site as a significant threat to the environment. No samples were taken as part of this study and the information provided is cursory. Based on the PA the site status was determined as "no further action required".

All data collection activities will be conducted in accordance with the following documents:

- "Final Project Work Plan - Revision 1 for the Site Inspection Project, EPA Region VI, Volume I", June 9, 1992, Fluor Daniel.
- "Original Project Field Sampling Quality Assurance Project Plan for the Site Investigations, Region VI, EPA", July 5, 1992, Fluor Daniel.
- "CLP Users Guide", EPA Region VI, not dated.
- "Original Health and Safety Plan, Site Inspections", June 8, 1992, Fluor Daniel.

There are still many questions and data gaps concerning this site. It is expected that some of the site questions will go unanswered and some data gaps cannot be filled using appropriate references. However, an attempt will be made to answer all data gaps during the

sampling event, and through additional contact with the State of Texas and the City of Garland. The list of data gaps is given in Table 1. Proposed sample locations and rationale are listed in Table 2. Figure 3 shows the proposed sample locations.

2.1 Source Waste Characterization

Sample analysis will consist of Target Compound List (TCL) organics and Target Analyte List (TAL) inorganics. The available records do not indicate that there are any particular constituents of concern for this site. Volatile organics are likely to be present through the decomposition of organic materials interred at the landfill. The presence of semivolatiles is possible due to the significant residential construction activity in east Garland and may include various asphalt water proofing materials. Pesticides and PCBs are of concern because the "old burning dump" is adjacent to this site. Inorganics may originate from many waste types. Cyanides may be present from plating wastes and other metal processing wastes. However, significant amounts of industrial waste are not believed to be interred at the site.

2.2 Ground Water Migration Pathway

The site is located in the western portion of the East Texas Basin Province. The regional geologic setting is characterized by mixed, thick sequence of terrigenous (sandstone, siltstone, shale) and carbonate (limestone, dolomite), units that appear relatively undeformed. The general orientation of these strata, including the regional fault pattern, is northeast-southwest. The local geological setting is described as the Ozan formation ("lower Taylor marl"), which has a thickness of greater than 500 feet (Ref 13). The native clays have low permeability but are characterized by very high shrink-swell potential which allows ground water recharge through small fissures in the clay. The gross precipitation in the Garland area is approximately 35 inches per year (Ref 14).

The City of Garland and adjacent cities rely completely on surface water (Lake Levon or Lake Ray Hubbard) for domestic water use. No municipal wells are known to exist within 4 miles of the site. The closest known active drinking water well is that owned by (b) (6) which is within 1/2 mile of the site. Ground water samples will be taken from this well as part of this SI. This sample will help determine the background water quality of the shallow

aquifer being used, on a limited basis, as a drinking water supply. An additional private ground water well will be sampled (sample of opportunity) as part of this SI; however, the location of this well has not been determined and this well may not be an active drinking water well. The well purging and water disposal procedures are per the "Generic Project Field Sampling Plan". These ground water sampling points are not depicted in Figure 3 because they are out of the scale of the drawing.

The operating landfill, across Miles Road from the site, has 11 monitoring wells and 3 characterization study wells (see Figure 2). These wells are to be sampled during the concurrent Castle Drive Landfill SI and Castle Drive and Miles Road Landfill SI. The analytical results obtained from these samples can be compared to the results obtained from the private well samples taken as part of this SI.

This site is built upon an area of low permeability clays. The leaching potential from the bottom of the landfill to ground water is low. The potential for horizontal migration through the soils is also low. However, the very high shrink-swell potential of the native soils will increase the potential for migration due to the formation of subsurface cracks in the clays. Three samples will be taken at a depth of 3 to 5 feet using hand augers to better characterize the site and the potential migration of contaminants to ground water.

Since this site is an inactive landfill, samples taken below the existing soil cover (>2 feet deep) may not constitute a proper matrix for analysis (i.e. partially decomposed trash). Care will have to be taken to ensure that subsurface samples are in a soil matrix that is suitable for analysis.

2.3 Surface Water Migration Pathway

The overland runoff from the site drains into Rowlett Creek. Rowlett Creek outlets 2 1/2 miles south from the probable point of entry (PPE) into Lake Ray Hubbard. Lake Ray Hubbard is used as a main water supply for the City of Dallas and other municipalities. Lake Ray Hubbard was formed by damming the east fork of the Trinity River. The 15 mile downstream segment ends on the east fork of the Trinity River, south of Lake Ray Hubbard. There are

no Federal or State designated sensitive environments along the 15 mile downstream segment. A pond is adjacent and upgradient from the site.

The sampling plan has been designed to determine the potential migration of materials by sampling sediment along the surface water drainage which flows along Miles Road from the southwest corner of the site. A sediment sample of Rowlett Creek will be taken above and below the PPE. Additionally, a sediment sample will be taken at the pond next to the site to determine potential subsurface migration of contaminants from the landfill to the pond.

2.4 Soil Exposure Pathway

The two properties on the McCallum property line are within 200 feet of the site. Ten permanent employees work at the operating landfill, which is within 200 feet of the site (Ref 1). No other businesses, schools, day care facilities, sensitive habitats or residents are located within 200 feet of the site (Ref 12). The closest school is Back Elementary which is approximately 1 mile southeast of the site, and Robert B. Sewell Elementary and B. G. Hudson Middle School which are approximately 1 mile north of the site.

Currently the site is used as a sheep pasture, and the grasses are harvested for horse feed (Ref 12). The site is heavily vegetated (See Photolog) therefore soil erosion is limited. The site access is restricted and the adjacent population is very low.

The sampling plan has been designed to determine if the adjacent residents are within 200 feet of observed contamination by sampling adjacent to these residences. The site will further be characterized by taking samples in the landfill cells, which are clearly demarcated by subsidence. Additionally, samples will be taken down gradient (towards Rowlett Creek) to determine hazardous material migration. Background soil samples will be taken at the agricultural field southeast of the site and on the church property southeast of the site and across Castle Drive, as part of the Castle Drive and Miles Road Landfill SI. These background samples may not provide a proper background for pesticide concentrations.

2.5 Air Migration Pathway

The site has a 2 foot clay soil cover and is heavily vegetated. Therefore, the air pathway risk from non-volatile hazardous compounds is minimal. There was no observed gas release on-site; however, gas formation through waste decomposition must be occurring. Therefore, samples will be taken in the clay cover to determine what gas constituents are available to the air migration pathway. One or more of the samples will be located near areas of dead or dying grasses, if they exist, as this is an indication of methane release.

3.0 PROJECT MANAGEMENT

Key personnel, level of effort and project schedule are addressed in this section of the report.

The EPA project manager for this site is Mr. Lonnie Ross.

The SI Project Manager for Fluor Daniel is Mr. Jonathan Stewart. Mr. Stewart is responsible for the day-to-day management of all SI tasks associated with the work assignment. He is the key point of contact to the EPA Project Manager.

The Team Leader for Fluor Daniel for the Miles Road Landfill Site is Mr. William Walters. He will obtain site access, perform the site reconnaissance, prepare the sampling plan, direct field activities and prepare the final report.

Mr. Keith Westberry will be responsible for coordinating all sample documentation, including the CLP paperwork.

One additional staff member will assist with sampling, decontamination and documentation.

The sampling inspection is scheduled for the week of June 21, 1993.

4.0 REFERENCES

1. U.S. Geological Survey, 7.5 minute topographic map, Rowlett, Tex., 1959 (photorevised 1968 and 1973).

2. Texas Department of Health, "Potential Hazardous Waste Site Identification and Preliminary Assessment", February 24, 1981.

3. Texas Department of Health, "Potential Hazardous Waste Site Final Strategy Determination", February 24, 1981.

4. Record of Telephone Conversations between Tom Casabonne, Fluor Daniel, and the Dallas County Tax Office (various personnel). March 22-30, 1993.

5. Record of Telephone Conversation between Tom Casabonne, Fluor Daniel, and Ken Smith, Landfill Director City of Garland Sanitation Department. March 16, 1993.

6. Record of Telephone Conversation between Josh Sacker, Fluor Daniel, and Jack May, City of Garland Water Department. April 8, 1993.

7. Record of Telephone Conversation between Josh Sacker, Fluor Daniel, and Jeff Reed, U.S. Fish & Wildlife Service Ecological Division. April 7, 1993.

8. Record of Telephone Conversation between Josh Sacker, Fluor Daniel, and Dorinda Sullivan, State of Texas Parks & Wildlife. April 7, 1993.

9. Federal Emergency Management Agency, Flood Insurance Rate Maps, Garland, Texas, Community-Panel Number 485471 0020 D, Map Revised Date August 15, 1990.

10. Record of Telephone Conversation between Tom Casabonne, Fluor Daniel, and Ken Smith, Landfill Director City of Garland Sanitation Department. April 5, 1993.

11. County and City Data Book. U.S. Department of Commerce, Bureau of the Census. Pg 715. 1988.

12. Miles Road Landfill Reconnaissance Field Notebook. William Walters. 5/11/93.

13. Geologic Atlas of Texas, Dallas Sheet. Bureau of Economic Geology, the University of Texas at Austin. 1972.

14. Soil Survey of Dallas County, Texas. United States Department of Agriculture, Soil Conservation Service. Pgs 16, 17, 27, 78, 142 & 144. February, 1980.

15. Geographic Exposure Modeling System, Census data for the Miles Road Landfill Site, Garland, Texas. May 13, 1993.

16. Record of Telephone Conversation between William Walters, Fluor Daniel, and Ken Smith, Landfill Director City of Garland Sanitation Department. May 21, 1993.

FIGURES

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FIGURE 1
SITE LOCATION MAP

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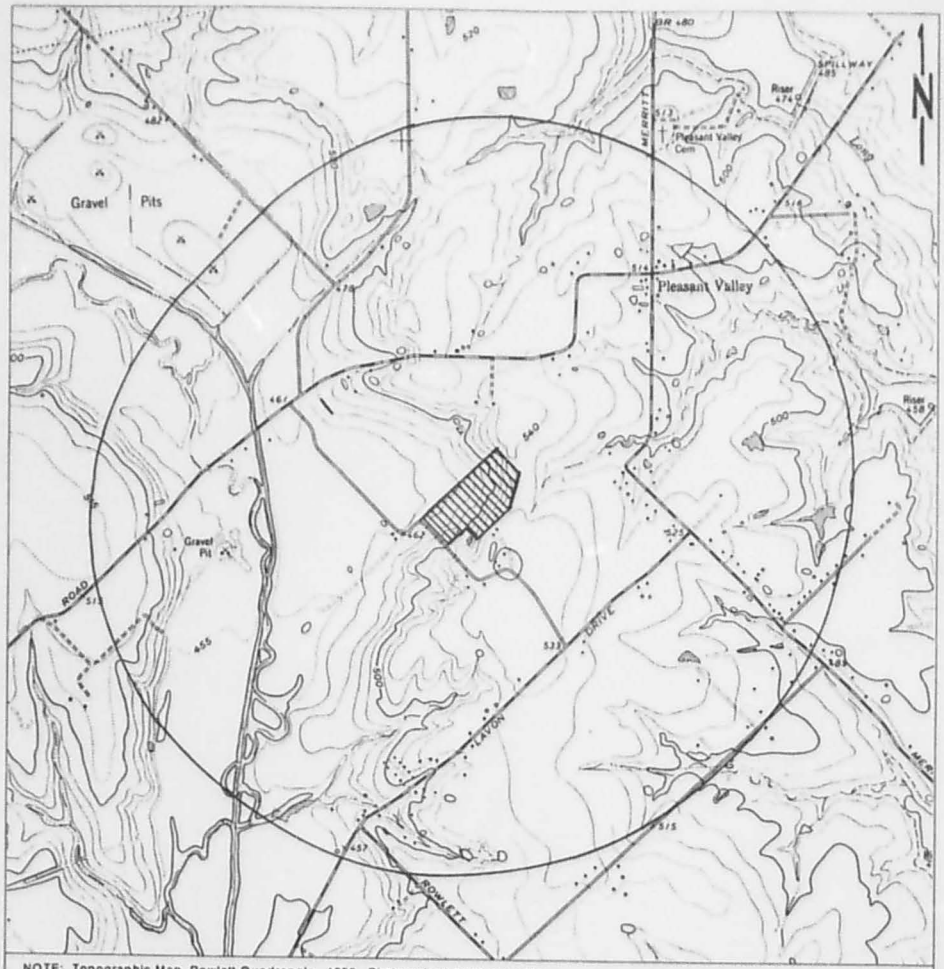

NOTE: Topographic Map, Rowlett Quadrangle. 1959. Photorevised 1968 and 1973

SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

QUADRANGLE LOCATION

Location Map

Miles Road Landfill

Garland, Texas

FLUOR DANIEL

Figure 1

FIGURE 2

SITE SKETCH

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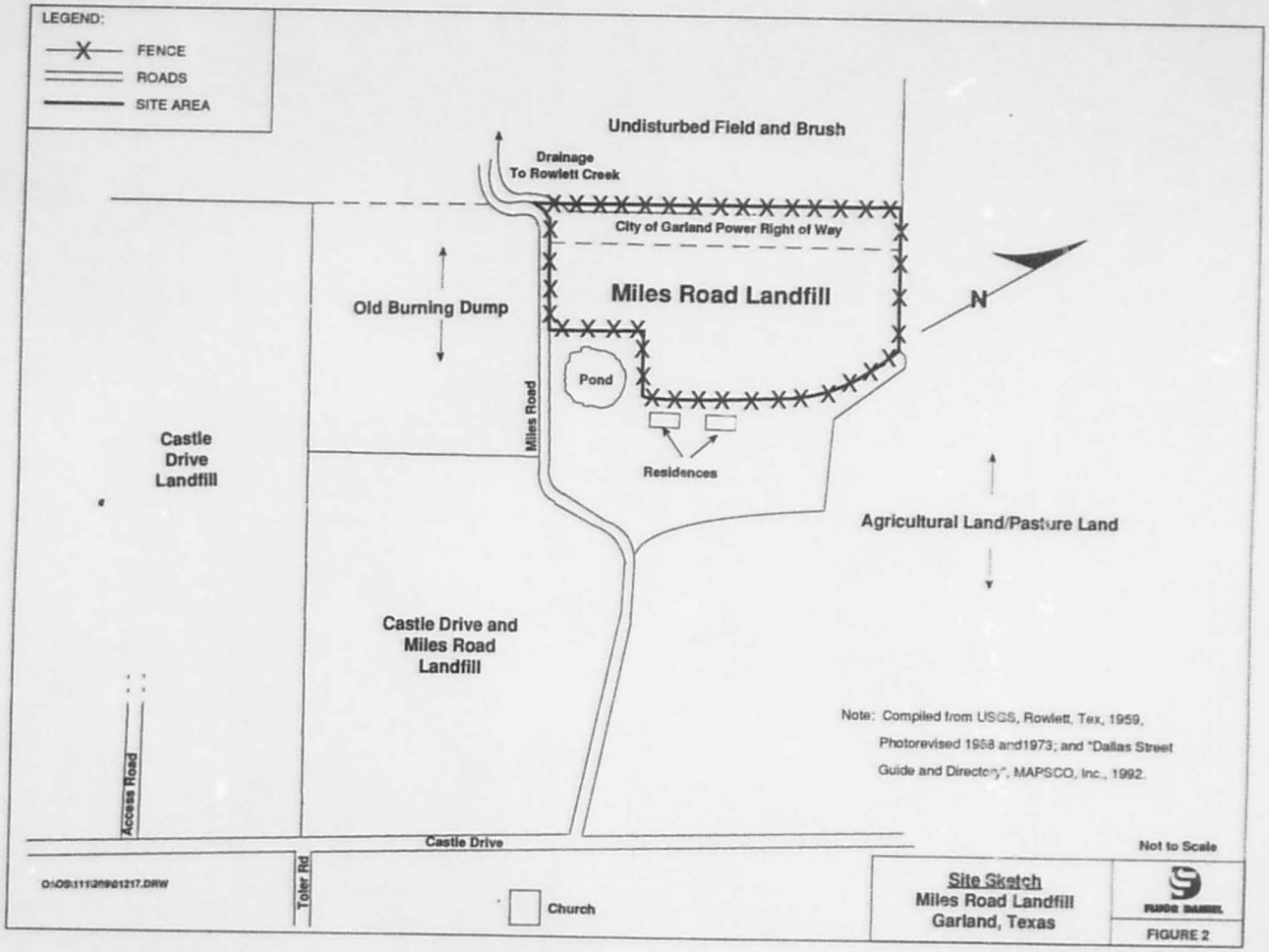
LEGEND:
FENCE
ROADS
SITE AREA
Undisturbed Field and Brush
Drainage
To Rowlett Creek
City of Garland Power Right of Way
Miles Road Landfill
Old Burning Dump
Pond
Miles Road
Residences
N
Castle
Drive
Landfill
Agricultural Land/Pasture Land
Castle Drive and
Miles Road
Landfill
Note: Compiled from USGS, Rowlett, Tex, 1959,
Photorevised 1958 and1973; and "Dallas Street
Guide and Directory", MAPSCO, Inc., 1992.
Access Road
Castle Drive
Not to Scale
O:\OS\111209\01217.DRW
Toler Rd
Church
Site Sketch
Miles Road Landfill
Garland, Texas
FIGURE 2

FIGURE 3

SAMPLE LOCATIONS

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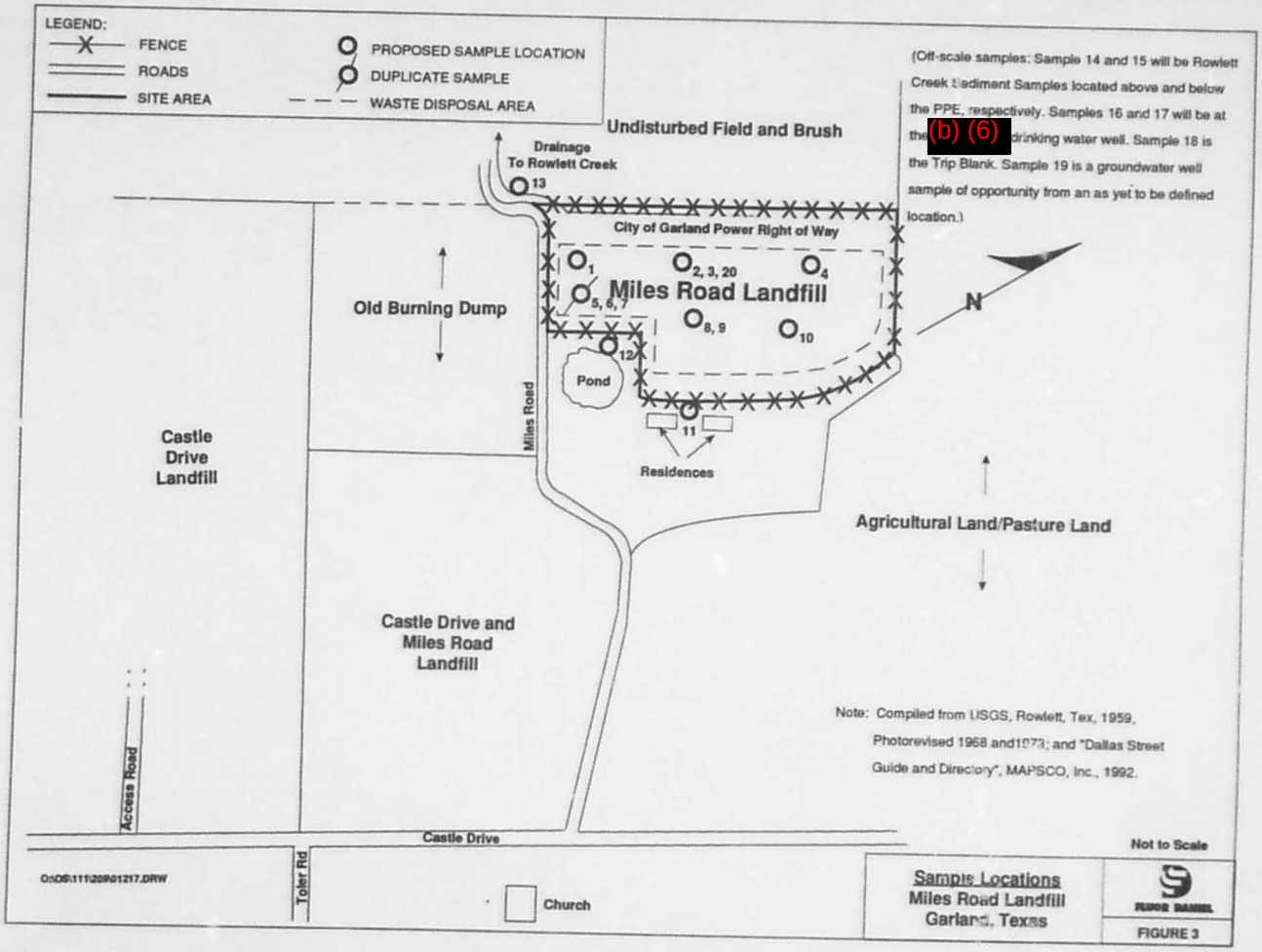
LEGEND:
FENCE
ROADS
SITE AREA
PROPOSED SAMPLE LOCATION
DUPLICATE SAMPLE
WASTE DISPOSAL AREA
(Off-scale samples: Sample 14 and 15 will be Rowlett Creek sediment Samples located above and below the PPE, respectively. Samples 16 and 17 will be at the (b) (6) drinking water well. Sample 18 is the Trip Blank. Sample 19 is a groundwater well sample of opportunity from an as yet to be defined location.)
Undisturbed Field and Brush
Drainage To Rowlett Creek
13
City of Garland Power Right of Way
1
2, 3, 20
4
5, 6, 7
Miles Road Landfill
8, 9
10
12
Pond
11
Residences
Old Burning Dump
Miles Road
Castle Drive Landfill
Castle Drive and Miles Road Landfill
Agricultural Land/Pasture Land
N
Note: Compiled from USGS, Rowlett, Tex, 1959, Photorevised 1968 and1973; and "Dallas Street Guide and Directory", MAPSCO, Inc., 1992.
Access Road
Castle Drive
Not to Scale
O:\09\111\209\01217.DRW
Toler Rd
Church
Sample Locations
Miles Road Landfill
Garland, Texas
FLUOR DANIEL
FIGURE 3

TABLES

H:\635336\230\MILES.WPL

TABLE 1

NON-SAMPLING DATA GAPS

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TABLE 1

NON-SAMPLING DATA GAPS

Landfill Data

- What is the depth of the waste?
- Additional site history would be helpful to fully characterize the site (Were there any other historic activities conducted on this site? Has fuel been stored on-site for the earth moving equipment used at the site?
- Are there any new or proposed state or local regulations that will impact this site? Will the State of Texas or the City of Garland eventually require leachate collection or soil gas extraction?

Ground Water Pathway Data

- Are there any municipal ground water wells within a four mile radius of the site? If any, what population do they serve? How many private wells are within a four mile radius of the site? Are these private wells used as a resource (i.e. for agriculture, livestock, etc.), as potable water, or both?
- What is the depth to ground water? What is depth of aquifers currently being used within 4 miles of the site? What are the aquifer interconnections?
- What is the soil permeability from the surface to the uppermost used or interconnected aquifer? What is the thickness of the least permeable layer?
- Does ground water connect with surface water within 1 mile of the site?

TABLE 1 (cont'd)
NON-SAMPLING DATA GAPS

Surface Water Pathway Data

- What is the flow rate of Rowlett Creek? Are there any resource uses for the water from Rowlett Creek in the segment from the PPE to its discharge into Lake Ray Hubbard?
- What is the total annual surface water and ground water recharge into Lake Ray Hubbard?
- Where are the water intakes located in Lake Ray Hubbard? What population does Lake Ray Hubbard serve? What kind of water treatment is performed on water taken from the lake prior to its distribution? Is there any available water quality data for hazardous constituents?
- What is the flow rate of the east fork of the Trinity River south of Lake Ray Hubbard? Are there any resource uses for the water from the east fork of the Trinity River from Lake Ray Hubbard to the end of the 15 mile downstream segment?
- What is the fish productivity (how many pounds of fish are taken annually) in Rowlett Creek from the PPE to its discharge into Lake Ray Hubbard? What is the fish productivity in Lake Ray Hubbard? What is the fish productivity in the east fork of the Trinity River from Lake Ray Hubbard to the end of the 15 mile segment?
- What is the total length of wetlands along the surface water pathway?

Air Pathway Data

- What is the acreage of wetlands within a 4 mile radius of the site?

TABLE 2

SAMPLING LOCATIONS AND RATIONALE

TABLE 2
SAMPLING LOCATIONS AND RATIONALE

Station 1 to 10

These are low concentration soil samples collected on the Miles Road Landfill site. Seven of the samples will be shallow soil samples taken at a depth between three to six inches. Three of the samples (Stations 3, 7, 9) will be taken at a depth of 3 to 5 feet. The rationale for these samples is to determine the presence and migration of hazardous constituents that exist at the site. All of these stations will be taken in the subsided landfill cells. Station 6 is a duplicate sample of Station 5 (QA/QC). Background soil samples will be taken as part of the concurrent Castle Drive and Miles Road Landfill SI.

Station 11 to 12

These are low concentration soil samples. Station number 11 will be taken next to the two residences that are adjacent to the site. Station number 12 will be taken on the edge of the pond that is adjacent to the site. All samples will be taken at a depth between three to six inches. The rationale for these samples is to determine contaminant migration from the site.

Stations 13 to 15

These are low concentration sediment samples along the surface water pathway. Station number 13 will be taken in the drainage adjacent to the southwest corner of the site and Miles Road. Stations 14 and 15 will be taken at Rowlett Creek above and below the PPE, respectively. All samples will be taken at a depth between three to six inches. The rationale for these samples is to determine the contaminant migration along the surface water pathway.

TABLE 2 (cont'd)

SAMPLING LOCATIONS AND RATIONALE

Stations 16 to 19

These are low concentration ground water samples taken at two different private wells. Stations 16 (QA/QC) and 17 (duplicate) will be taken at the [redacted] private drinking water well. Station 18 will be the trip blank. Station number 19 is [redacted] opportunity to be taken at a currently unidentified private well near the site. The rationale for these samples is to determine background ground water concentrations. These background concentrations can be compared with the concentrations found in the operating landfill monitoring wells, that will be sampled as part of the concurrent Castle Drive Landfill SI and Castle Drive and Miles Road Landfill SI.

Station 20

This is a rinsate sample of the decontaminated hand auger used at Station 3 prior to its use at Station 7.

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ATTACHMENT 1

ADDENDUM TO THE GENERIC HEALTH AND SAFETY PLAN

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ADDENDUM TO GENERIC HEALTH AND SAFETY PLAN
FOR SITE INSPECTION
MILES ROAD LANDFILL, TXD980697072
WA # 25-6JZZ

1.0 INTRODUCTION

The purpose of this addendum is to identify specific hazards, set action levels, define the levels of protection and to complete emergency response information for reconnaissance and sampling activities at the Miles Road Landfill Site in Garland, Texas.

2.0 SITE DESCRIPTION

The Miles Road Landfill Site is an inactive sanitary landfill located in Garland adjacent and east of Miles Road, north of Castle Drive and south of Pleasant Valley Road. The geographical coordinates of the center of the site are North 32°56'31" latitude and West 96°34'46" longitude.

The site encompasses approximately 45 acres. The City of Garland disposed of approximately 67,000 tons of municipal solid waste from February 1973 to June 1975. No liquid or hazardous wastes were accepted at the site. Three feet of final cover was added to the surface of the landfill at the time of closure. No landfill controls, such as an engineered liner, leachate collection or soil gas extraction exist at this site. Currently, the site is used as a pasture for sheep, and the Coastal grass is also harvested and sold as horse feed.

Access to the site can be gained through the entrance between the two residences south of the landfill. Additional access can be gained through a locked gate on Miles Road. This second gate, which is wide enough to allow vehicle access, can be opened by obtaining a key from the property owner, Mr. Vaughn McCallum, who lives in one of the residences adjacent to the site.

The site generally drains to the southwest towards Miles Road. Standing water collects in some of the sunken landfill cells. The drainage continues off-site around the curve in Miles Road to the northwest for approximately 1/4 mile where it crosses the road and goes west towards Rowlett Creek. The site is outside of the 500 year floodplain.

3.0 HAZARDS

The following sections will describe, based on available information, the chemical and physical hazards associated with this site.

3.1 Chemical Hazards

This site has not been previously sampled; therefore no data exists to determine contaminants of concern. Three feet of final cover was placed upon the surface of the landfill as part of the site closure. This cover, along with the fact the wastes interred at this landfill are municipal solid wastes, suggests that the chemical exposure hazards will be low. However, proper protective equipment will be used to minimize chemical exposure.

Nuisance odors are likely to be present on-site since this site is adjacent (less than 1/4 mile) to the active sanitary landfill now in use by the City of Garland. Individuals that are particularly sensitive to the landfill odors (headache, dizziness, nausea, etc.) will notify the task leader for work task reassignment or replacement by other available personnel.

3.2 Physical Hazards

The physical hazards are heat stress; and trip/fall hazards. Control of heat stress injuries is described in the appendix of the generic HASP. Severe injuries could occur due to trip/fall hazards on this site. Another hazard that may be encountered at this site is poisonous snakes (rattlesnakes or cottonmouths) and fire ants.

4.0 MONITORING

No specific contaminant of concern is known to be present, and high levels of hazardous material are not expected on the surface of this site. However, HNu monitoring will be performed to determine if volatile organic hazards may be present.

5.0 PERSONAL PROTECTIVE EQUIPMENT

Workers entering a potentially contaminated area must have protective equipment available for use. The most likely exposure scenario at this site would be dermal contact and inhalation of volatile organic constituents or dust contaminated with hazardous constituents that reside in the soils to be sampled. Since the existence, types, and concentration of

hazardous constituents are not known for this site the level of protection that is required to be available will be Level C Protection and will consist of the following:

- Full face air purifying respirator with a high efficiency particulate filter and protection from acid gases and organic vapors;
- A 10-minute escape pack for each sampler;
- Polyethylene coated Tyvek with hood;
- Inner latex gloves;
- Outer nitrile gloves;
- Chemically resistant boots with steel toe/steel shank; and
- Hard hats.

The Tyvek coveralls, if used, will be taped at the wrists and ankles.

Due to this site being a closed municipal landfill that did not accept liquid or hazardous wastes, the level of protection that is assumed to be necessary is Level D. The Site Task Leader will determine whether an upgrade to Level C is necessary during the sampling inspection, by the results of the HNu monitoring.

Decontamination procedures are defined in the body of the generic HASP and in the sampling plan.

6.0 EMERGENCY PROCEDURES

In the event an emergency situation arises, such as injury, illness, or fire, the appropriate immediate response must be taken by the first person to recognize the situation.

First aid equipment and an emergency eye wash unit will be available on-site. Should a worker be so severely injured that decontamination is not possible, the ambulance crew and hospital will be so notified.

A list of emergency contacts are provided below in order of contact. A route map and verbal route description to the hospital is attached to this addendum and will be posted at the site.

Police, Fire, or Ambulance	**911**
Fluor Daniel Health and Safety Manager	**(214) 450-4100**
EPA Work Assignment Manager	**(214) 655-8374**

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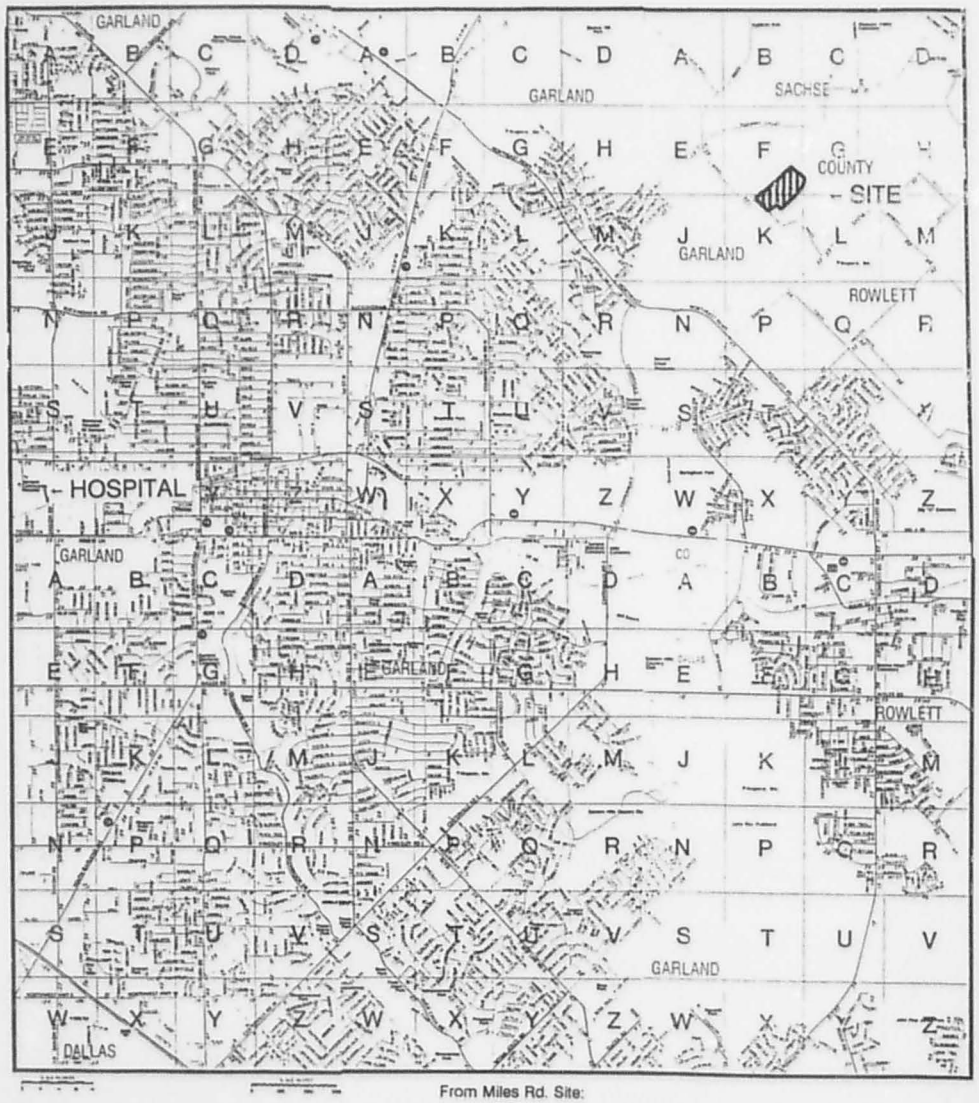
ROUTE TO GARLAND COMMUNITY HOSPITAL

276-7116



From Miles Rd. Site:

Take Miles Rd. southeast to Castle Dr. Turn right (southwest) onto Castle and travel approximately 2.5 miles, staying left on Castle Dr. as it turns into Dexham Rd. Then turn right (west) on State Highway 66 and proceed for approximately 1.8 miles then turn right (north) on Country Club Rd. Go approximately 0.3 miles then turn left (west) on Walnut St. Proceed on Walnut St. for approximately 3.2 miles then turn left (south) on King St. Garland Community Hospital will be at the end of the driveway. (Alternative hospital is the Memorial Hospital of Garland. Directions are identical through Walnut. Go 2.8 miles on Walnut. Turn right [north] onto Ciara Barton and go 0.15 miles to Marie Curie. Memorial Hospital is on the northeast side of the intersection.)

ATTACHMENT 2

BACKGROUND/SAMPLE STRATEGY

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BACKGROUND/SAMPLE STRATEGY

Site: Miles Road Landfill	**Conducted By:** W. Walters
Location: Garland, Texas	**Project Manager:** J. Stewart
Tentative field date: Recon 5/11/93	**Sampling** 6/21-25/93

PART I

Site Description (size, structures, extent of pavement)

The Miles Road landfill is a closed municipal landfill used by the City of Garland. The site is approximately 45 acres in total size, with about 30 acres comprising the old working area of the landfill. A total of 67,000 tons of waste were disposed of in this landfill. The site is entirely covered in vegetation (grasses). No structures or pavement exist on-site. Adjacent to the site are two residences.

Site Activity (years, processes, waste, disposal practices)

Past: This landfill, which accepted only municipal solid wastes, operated between February 1973 and June 1975.

Present: The landfill is owned by (Joel) Vaughn McCallum who uses the landfill as a pasture for sheep. Additionally, Mr. McCallum harvests the grass he grows on-site and sells it as horse feed.

Previous Sampling?	**YES**	**NO**	**COMMENT**
Groundwater	O	X	
Soil/Sediment	O	X	
Other	O	X	
Have any results been obtained? (Attach on separate page)	O	X	
Did sample analysis include QC/BKGD?	O	X	
Has any remediation occurred?	O	X	
Will samples be collected?	X	O	

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BACKGROUND/SAMPLE STRATEGY
PART II

Sample Summary and Rationale

MATRIX	# OF SAMPLES	LOCATION	DEPTH	GRAB/COMP.
Soil	7	On-Site	Surface	Grab
Soil	3	On-Site	3-5 feet	Grab
Water (rinsate)	1	On-Site	N/A	Comp
Soil	1	Off-Site	Surface	Grab
Sediment	4	Off-Site	Surface	Grab
Ground Water	3	Off-Site	N/A	Grab
Trip Blank	1			

Sample Analysis

MATRIX		ANALYSIS				
		VOA	SEMI	PCB/PEST	INORG.	OTHER
Soil/Sediment	X CLP	X	X	X	X	Cyanides
Groundwater/Water	X CLP	X	X	X	X	Cyanides
	O CLP	O	O	O	O	
	O CLP	O	O	O	O	

COMMENTS: Eleven samples will be taken on-site, and eight will be taken off-site with 3 of those being sediment samples along the surface water pathway (note: on-site is defined as directly on top of areas of waste disposal). Three of the on-site soil samples will be taken by hand auger to a depth of 3 to 5 feet. A rinsate sample will be taken from the decontaminated hand auger. Groundwater samples will be taken at two private wells, with at least one (b) (6) Well) being an active drinking water well. In addition, we are required to take a trip blank sample.

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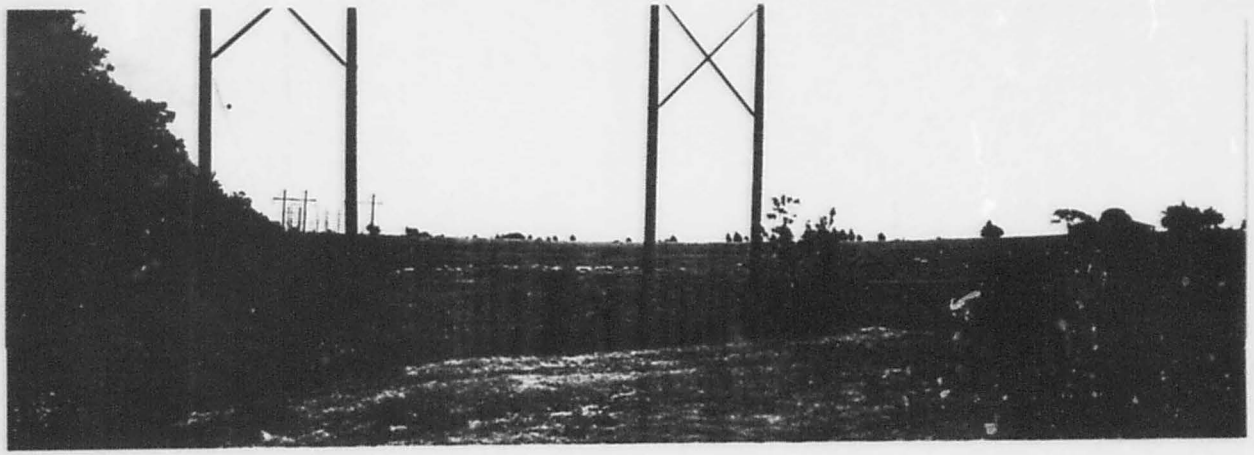
ATTACHMENT 3
PHOTOLOG

Photo No.
1



Site Name:
Miles Road Landfill
CERCLIS # TXD980697072
Location:
Garland, Texas
Project #: WA #25-6JZZ

Page 1
of 6

Photographer/Witness William Walters/Keith Westberry
Date 5/11/93 Time Morning Direction Northeast
Description Panoramic of the Miles Road Landfill from the western fenceline (right) showing the City of Garland power right of way. Photo taken in southwest corner of the site adjacent to Miles Road. Grazing sheep are visible.

Photo No.
2

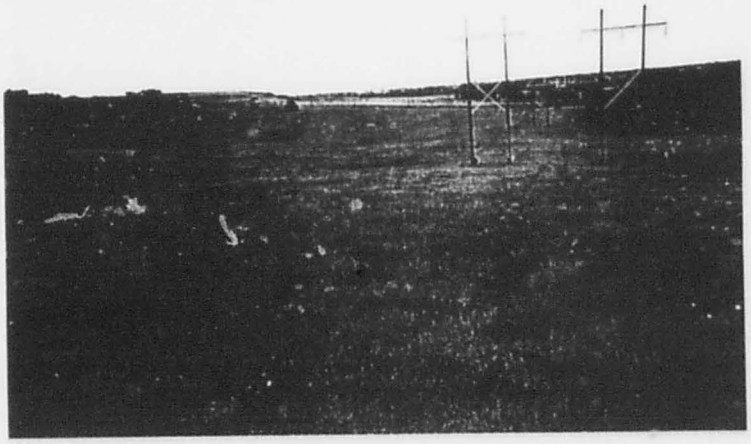
(b) (6)

Site Name:
Miles Road Landfill
CERCLIS # TXD980697072
Location:
Garland, Texas
Project #: WA #25-6JZZ

Page 2
of 6

Photographer/Witness William Walters/Keith Westberry
Date 5/11/93 Time Morning Direction East Northeast
Description Panoramic of the Miles Road Landfill from the eastern fenceline (left) showing the two residences adjacent to the site. Photo taken in southwest corner of the site adjacent to Miles Road. Grazing sheep are visible.

Photo No.
3



Site Name:
Miles Road Landfill
CERCLIS # TXD980697072
Location:
Garland, Texas
Project #: WA #25-6JZZ

Photographer/Witness William Walters/Keith Westberry
Date 5/11/93 Time Morning Direction Southwest
Description Photo of west side of site from northwest corner in the City of Garland power right of way. Landfill is left of the right of way on the photo.

Photo No.
4

(b) (6)

Page 3
Of 6

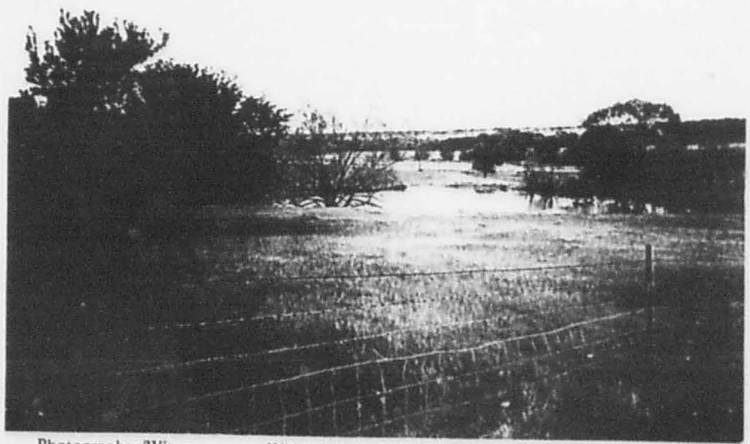
Photographer/Witness William Walters/Keith Westberry
Date 5/11/93 Time Morning Direction South
Description Photo of landfill from the northwest corner of the site. Residences adjacent to the landfill are shown in the center of the photo.

Photo No. 5

Site Name: Miles Road Landfill
CERCLIS # TXD980697072
Location: Garland, Texas
Project #: WA #25-6JZZ

Photographer/Witness William Walters/Keith Westberry
Date 5/11/93 Time Morning Direction West
Description Photo of site looking downhill. Standing water can be seen in the subsided cells. In the background to the left is Miles Road.

Photo No. 6



Photographer/Witness William Walters/Keith Westberry
Date 5/11/93 Time Afternoon Direction Southwest
Description Photo of the man made pond that is adjacent to the landfill.

Photo No.
7

Site Name:
Miles Road Landfill
CERCLIS # TXD980697072 Photographer/Witness William Walters/Keith Westberry
Location: Date 5/11/93 Time Morning Direction North
Garland, Texas Description Photo along cell showing subsidence and pools of standing water.
Project #: WA #25-6JZZ

Photo No.
8

Site Name:
Miles Road Landfill

CERCLIS # TXD980697072 Photographer/Witness William Walters/Keith Westberry

Location: Garland, Texas Date 5/11/93 Time Morning Direction North

Project #: WA #25-6JZZ Description Close up Photo of standing water pool shown in Photo #7. Water has sheen that may indicate leachate migration from the waste in the cell.

ATTACHMENT 4

CLP SAMPLE REQUEST FORM

Circle the appropriate numbers: ARCS TES TAT RSM Other:_____ CASE/SAS #_____

REGION 6
CLP SAMPLE REQUEST FORM

Site Name: Miles Road Landfill Location: Garland, TX CERCLIS #TXD980647072

Type of Investigation: (X) SSI ( ) ESI ( ) HRS ( ) RI/FS ( ) RA ( ) Other:_____

Sampling Comp.: Fluor Daniel Contact: Jeanthee Stewart Ph.: (214) 450-4100

Shipping Contact: William Walters On Site Ph.: (214) 450-4100 FAX#: (214) 450-4101

Signed By:_____ Date:_____ Mail Code:_____ Ph.:_____
(EPA SITE MANAGER, RPM, OSC)

Sampling Date: 6/21 to 6/26/93 Shipping Date: 6/21 to 6/25 93 Spill ID #:_____

Turnaround Time: RAS Samples: 35 Day SAS Samples:_____

****

Is this activity a Superfund Lead? (Y) (N) / A PRP Lead? (Y) (N) / A State Lead? (Y) (N) / Other:_____
Are these samples splits, provided by the PRP? (Y) (N). If these are split samples, please provide the names of the labs tha
the PRP's will use: Organic Lab(s) _____ Inorganic Lab(s)_____

****

RAS ANALYSES *(Submit to RSCC on Wednesdays by 11:00 AM, one week prior to your sampling date).*

	Low Conc. Waters	Med. Conc. Waters	Low Conc. Soil/Sedm	Med. Conc. Soil/Sedm
TCL Organic (all three fractions)			12	
VOA Fraction				
BNA Fraction				
PES/PCB Fraction				
PCDD/PCDF(45 TA)				
TAL Metals + CN			12	
TAL Metals				

*Note: If you are collecting samples from drinking water sources, you must contact Lisa Feldman and obtain a Form from her. Lisa's phone is (713) 983-2129.

TCL = Target Compound List
TA = Turnaround Time
TAL = Target Analyte List
RAS = Routine Analytical Services
SAS = Special Analytical Services

****

SAS ANALYSES *(Submit this Form in addition to the SAS Client Request Form three weeks prior to your sampling date).*

# of Samp.	Matrix	Conc.	Source	Analytical Parameters Required

COMMENTS:

ATTACHMENT 5

EVALUATION CHECKLIST

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EVALUATION CHECKLIST

NOTE: Information must be referenced; attach a list of references.

Site Name: Miles Road Landfill, City of Garland
TDD No.: TXD980697072
Reference No.:

1. SOURCE AREAS, CONTAINMENT, WASTE QUANTITY

Complete the following for each area where hazardous substances have been deposited, stored, disposed of, or placed, plus those soils that have become contaminated from migration of a hazardous substance.
(refer to Table 1, and Tables 2-5, 3-2, 4-2, 6-3 and 6-9)

Source Area	Containment	Waste Quantity
Landfill	2 feet of soil cover (Ref 1)	67,000 tons (Ref 2)

2. AVAILABLE ANALYTICAL DATA

For the media listed below, note if there is a documented observed release or the potential to release to that media. An observed is noted if a hazardous substance is detected at three times the background sample concentration or background sample quantitation limit. A potential to release is noted if wastes were disposed of in a source area which would allow contaminant migration. (refer to PA Data and Rescoring Record Table for additional criteria).

Media	Potential to Release	Observed Release	Comments
Groundwater	X		
Surface Water	X		
Sediment	X		
Soil < 2 feet deep	X		
Soil > 2 feet deep	X		
Air	X		
Other (specify, e.g., sludge, source)			

3. **GROUNDWATER PATHWAY**

A. Population served by private wells or drinking water supplies within the designated area rings. Note if the water supplies within that ring are private (P), community (C) or both (B). (reference with water supply distribution maps and topographic maps using the average county population density)

Distance (miles)	Population	Type of Supply (P,C, or B)
0 - 1/4	0	(Ref 3)
1/4 to 1/2	0	(Ref 3)
1/2 to 1	3 (est)	Private (Ref 3)
1 to 2	12 (est)	Private (Ref 3)
2 to 3	48 (est)	Private (Ref 3)
3 to 4	192 (est)	Private (Ref 3)

B. Are any of the supplies to the population noted above contaminated? ____Yes ____No __X__To be determined

If yes:

- What is the location of the well? _____
- What are the contaminants detected? _____
_____
- Are any health-based benchmarks exceeded (e.g., MCLs)?
____Yes ____No

C. What is the distance to the nearest drinking water well?
__0.30__ miles (Ref 3,4)

D. What is the depth to groundwater on the property?
__TBD__ feet

4. **SURFACE WATER PATHWAY**

A. Identify the surface water bodies and flow rates (cubic feet per second, cfs) along a 15 stream-mile pathway. Identify the uses of each surface water body as:

DW = drinking water
I = irrigation of commercial food crops or commercial forage crops
L = watering of commercial livestock
FP = ingredient in commercial food preparation
R = major or designated recreation area
F = fishery

Surface Water Body	cfs	Use(s)
Onsite Pond	n/a	
Rowlett Creek	TBD	F
Lake Ray Hubbard	n/a	DW,I,L,FP,R,F
Trinity River (east fork)	TBD	F

B. Identify the population served by surface water intakes along the 15 stream-mile pathway.

Surface Water Body	cfs	Use(s)
Lake Ray Hubbard	n/a	

C. Are any of the intakes to the population noted above contaminated? ____Yes _X_No

If yes:

- What is the location of the intake?_____
- What are the contaminants detected? _____
_____
- Are any health-based benchmarks exceeded (e.g., MCLs)?
____Yes ____No

D. Are there any fisheries along the 15 stream-mile pathway that are contaminated? ____Yes _X_No

If yes:

- What is the location of the fishery?_____
- What are the contaminants detected? _____
_____
- Are any health-based benchmarks exceeded (e.g., MCLs)?
____Yes ____No

E. Identify sensitive environments noted on PA Table 5, along the 15 stream-mile pathway and note the surface water body it is on.

Sensitive Environment	Surface Water Body
None (Ref 5,6)	

F. Are there any sensitive environments along the 15 stream-mile pathway that are contaminated? ____Yes ____No

If yes:

- What is the location of the sensitive environment?
_____
- What are the contaminants detected? _____
_____

G. What is the distance to nearest surface water body?
_2500_ feet (Rowlett Creek Ref 4, to on-site pond is 50 ft)

H. What is the flood frequency of the nearest surface water body? _TBD_ years

5. SOIL EXPOSURE PATHWAY

A. What is the number of people who reside on the property or within 200 feet of contamination who occupy a residence, attend a school, or attend a day care center? 0 (Ref 3)

B. What is the number of workers on the property and at a workplace within 200 feet of contamination? 10 (Ref 7)

6. AIR PATHWAY

A. Population residing within the designated area rings. (reference with topographic maps using the average county population density for populations from 0 to 1/2 mile, and with GEMS for 1/2 to 4 miles)

Distance (miles	Population
0 - 1/4	12 (Ref 3, 8)
1/4 to 1/2	178 (interp. Ref 3, Ref 9)
1/2 to 1	1,282 (interp. Ref 3, Ref 9)
1 to 2	7,408 (Ref 9)
2 to 3	14,287 (Ref 9)
3 to 4	17,352 (Ref 9)

B. Determine the wetland acreage for the following rings:

Distance (miles)	Total Wetland Acreage
0 - 1/4	TBD
1/4 to 1/2	TBD
1/2 to 1	TBD

References

1. Record of Telephone Conversation between Tom Casabonne, Fluor Daniel, and Ken Smith, Landfill Director City of Garland Sanitation Department. April 5, 1993.

2. Texas Department of Health, "Potential Hazardous Waste Site Identification and Preliminary Assessment", February 24, 1981.

3. Miles Road Landfill Reconnaissance Field Notebook. William Walters. 5/11/93.

4. U.S. Geological Survey, 7.5 minute topographic map, Rowlett, Tex., 1959 (photorevised 1968 and 1973).

5. Record of Telephone Conversation between Josh Sacker, Fluor Daniel, and Jeff Reed, U.S. Fish & Wildlife Service Ecological Division. April 7, 1993.

6. Record of Telephone Conversation between Josh Sacker, Fluor Daniel, and Dorinda Sullivan, State of Texas Parks & Wildlife. April 7, 1993.

7. Site Operating Plan (revised). City of Garland. October 19, 1992.

8. County and City Data Book. U.S. Department of Commerce, Bureau of the Census. Pg 715. 1988.

9. Geographic Exposure Modeling System, Census data for the Miles Road Landfill Site, Garland, Texas. May 13, 1993.